



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

As long as no outside influence interferes with the regular procession of the planets, and the astronomer cannot foresee although he may admit the possibility of such interference, we may count upon our globe remaining a genial abode, neither too hot nor too cold, though subjected to some vicissitudes of climate; and long before the next period of high eccentricity has blasted our fair continent with the chilling breath of the glaciers, the race of man may have had its day.

---

### POGSON'S COMET AND THE BIELAN METEORS.

---

BY W. H. S. MONCK, DUBLIN.

---

The story of POGSON's discovering a comet in the year 1872 is pretty well known. KLINKERFUES, after the great shower of Nov. 27th, 1872, telegraphed to POGSON, at Madras, that BIELA's comet had touched the earth and asked him to look out for it near  $\theta$  Centauri. POGSON did so as soon as the weather permitted and saw a comet in the direction indicated on the 2d and 3d of December. Subsequent computations, however, led astronomers to conclude that BIELA's comet could not have touched the earth on the day in question, nor if it had done so, would it have been seen in the place where a comet was observed by POGSON.

The reason, however, why KLINKERFUES placed the comet near  $\theta$  Centauri does not seem to be so well known. The radiant point for meteors attached to BIELA's comet is situated at about  $25^{\circ}$ ,  $+44^{\circ}$ . But KLINKERFUES deduced from the paths of 81 meteors observed on the 27th of November, 1872, a radiant at  $26^{\circ}$ ,  $+37^{\circ}$ . He seems to have concluded from this radiant that BIELA's comet had changed its course and that its new path would bring it near  $\theta$  Centauri; and the discovery of a comet near that star by POGSON affords some confirmation of the correctness of KLINKERFUES's radiant. It is true, indeed, that the majority of observers in 1872 placed the radiant nearer to  $25^{\circ}$ ,  $+44^{\circ}$  than KLINKERFUES, but the radiant is admittedly a very diffused one and it cannot be said that KLINKERFUES stands alone in his determination of it. SWIFT, at Rochester, N. Y., placed it at  $26^{\circ}$ ,  $+39^{\circ}$  during the latter part of the shower and DENZA placed one extremity of the radiant (which he described as an area) at  $25^{\circ}$ ,  $+38^{\circ}$ . From what we know of the break-up of BIELA's

comet there is no improbability in its having thrown off at some earlier period the comet observed by POGSON; or if they never formed parts of the same comet, the comets of POGSON and BIELA may belong to the same family and may co-operate in producing the same diffused meteor-shower.

Another great display of BIELAN meteors took place in 1885. It is natural to inquire whether any meteors from KLINKERFUES's radiant were observed on that occasion. I find on the 4th of December, 1885, Mr. DENNING deduced a radiant at  $31^{\circ}$ ,  $+37^{\circ}$  from a number of slow-trained meteors of the BIELAN type, and he places November 30 and December 7 under the head of "other nights of observation." Dr. KLEIBER has computed parabolic orbits for all the radiants in Mr. DENNING's catalogue and I find that his elements for this shower agree closely with those of the BIELAN shower a few days earlier. I give these elements compared with those of the shower observed at  $24^{\circ}$ ,  $+44^{\circ}$  on the 27th of November in the same year. These showers are numbered 819 and 851 in Mr. DENNING's catalogue.

	No. 819.	No. 851.
$\pi$ .....	$109^{\circ}.8$	$114^{\circ}.5$
$\Omega$ .....	$249^{\circ}.5$	$253^{\circ}.0$
$i$ .....	$15^{\circ}.7$	$11^{\circ}.5$
$q$ .....	$0.847$	$0.861$

The motion in both cases is direct.

If POGSON's comet was pursuing an orbit similar to that of BIELA's it would nearly complete three revolutions in 20 years. If it was near the node in November, 1872, it would be a considerable distance from it in November, 1885, which would account for the feebleness of the shower noted by Mr. DENNING on the 4th of December in that year. But it ought to be again near the node about the 1st of December, 1892, when we might hope to detect the comet itself as well as a renewal of the meteor-shower which led KLINKERFUES to its discovery. It should, however, be mentioned that one of Mr. DENNING's stationary or long-enduring radiants is situated very near  $31^{\circ}$ ,  $+37^{\circ}$ , which renders the connection of this shower with any comet somewhat problematical.

As POGSON obtained but two observations of the comet, no orbit could of course be determined from his data. But if the comet is one of short period like that of BIELA and the meteor-showers which I have mentioned were connected with it, some of